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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,066	12/27/2001	Suresh Raghavan	10541-870	3261

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EXAMINER

BINDA, GREGORY JOHN

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 06/03/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/035,066	Applicant(s) Raghavan et al
	Examiner Greg Binda	Art Unit 3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on Apr 23, 2003
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 9-19 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 9-19 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on Apr 15, 2002 is/are a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5 & 7
- 4) Interview Summary (PTO-413) Paper No(s). _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

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Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference sign A which is mentioned in the description on page 3, line 9; reference numeral 25 which is mentioned in the description on page 3, line 11 and page 4, line 17; and reference numerals 25, 34, 37, 41, 44, 47, 51 which are mentioned in the description at paragraph 0015. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because paragraphs 0001, 0004-0006 and the abstract indicate that the claimed invention is a method, but no such method is claimed.

3. The abstract of the disclosure is objected to because it begins with a phrase that can be implied.

Claim Objections

4. Claim 12 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

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5. Claims 14 & 17-19 are objected to because:

- a. Claims 14 & 19. The limitation "0.2 in-oz balance" should be changed to -- 0.2 oz-in unbalance --. In the art of driveshafts, balance is quantified by the amount of unbalance and the unit measure used is "oz-in". See *SAE* page 215, second paragraph and page 219, Fig. 5.
- b. Claims 17 & 18 each recite the limitation "the metal alloy". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 U.S.C. § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 9-13 & 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Oros et al, US 4,912,299 (Oros). Fig. 3 shows a driveshaft comprising: a tube 11 having a driveshaft wall (see "wall" in col. 4, line 30) extending to an open end 15, the wall having an inner surface 24 and an outer surface 26; and a yoke 17 welded to the open end 15 of the tube 11, the yoke 17 having a body portion (nominally indicated by numeral 18) and a tube engaging portion 20 extending from the body portion having a head and an outer wall extending therefrom to the tube engaging

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pilot 20, the pilot having a contact wall 23 extending from the outer wall defining an outer shoulder 22 to engage the open end 15 and engage the inner surface 24 of the driveshaft wall. In col. 5, lines 7 & 8, Oros discloses that the yoke is welded to the open end of the tube with an aluminum alloy.

8. Claims 9-13 & 16-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Seeds, US 5,672,286.

9. Claims 9-12 & 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Simons, US RE 32,892. Figs. 1 & 2 show a driveshaft comprising: a tube 10 having a driveshaft wall (see "wall" in col. 3, line 3) extending to an open end 16, the wall having an inner surface 18 and an outer surface; and a yoke 12 welded to the open end 16 of the tube 10, the yoke 12 having a body portion (see the portion of yoke 12 directly below the lead line for numeral 12) and a tube engaging portion 20 extending from the body portion having a head and an outer wall extending therefrom to the tube engaging pilot 20, the pilot having a contact wall 24 extending from the outer wall defining an outer shoulder 22 to engage the open end 16 and engage the inner surface 18 of the driveshaft wall. In col. 4, lines 13 & 14 Simons discloses that the yoke is welded to the open end of the tube with a metal alloy. In col. 1, lines 12-17 and col. 2, lines 65-67, Simons discloses that the driveshaft comprises aluminum alloy.

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10. Claims 9-12 & 16-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by any one of Zackrisson, US 4,527,978; Schabel, US 5,692,959; and Breese, US 6,015,350.

11. Claims 9, 11 & 12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by any one of Breese, US 5,611,135 and Breese US 6,001,018.

12. Claims 9, 11, 12 & 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Breese, US 6,113,98. Figs. 1 & 2 show a driveshaft 15 comprising a tube 16 having a driveshaft wall extending to an open end 20b, the wall having inner and outer surfaces; and a yoke 22b welded to the open end 20b of the tube 16. In col. 4, lines 39-41, Breese discloses that the tube 16 has a diameter greater than three inches.

13. Claims 9, 11 & 12 are rejected under 35 U.S.C. 102(a) as being anticipated by Kelly et al, GB 2 359 121 (Kelly). Figs. 1 & 2 show a driveshaft 18 comprising a tube 30 having a driveshaft wall extending to an open end 48, the wall having inner and outer surfaces; and a yoke 26 laser welded to the open end 48 of the tube 16 (see also page 7, line 15). On page 7, lines 25-28, Kelly discloses that the driveshaft comprises aluminum.

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14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 14 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oros.

Oros shows a driveshaft comprising all the limitations of the claims, but Oros does not expressly disclose the driveshaft configured to have a balance less than 0.2 oz-in unbalance. However, it would have been obvious to one of ordinary skill in the art to design the driveshaft of Oros such that the its balance is less than 0.2 oz-in unbalance, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

16. Claims 14 & 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over any one of the prior art references cited in items 8-10 above for the same reason noted in item 15.

17. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of the prior art references cited in items 11-13 above for the same reason noted in item 15.

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Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached Monday through Thursday from 9:30 am to 7:00 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 (before final), (703) 872-9327 (after final) and (703) 872-9325 (customer service).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.



**GREGORY J. BINDA
PRIMARY EXAMINER**